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Research Development

DECEMBER 1987

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Software for R&D

SERVING THE $235-BILLION WORLDWIDE R&D INDUSTRY

Research & Development

The magazine with the R&D 100 Awards

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Statistical techniques let scientists and engineers design experiments to identify conditions for maximum yields of products. Cover photo made for *R&D* by Stephen F. Grohe.

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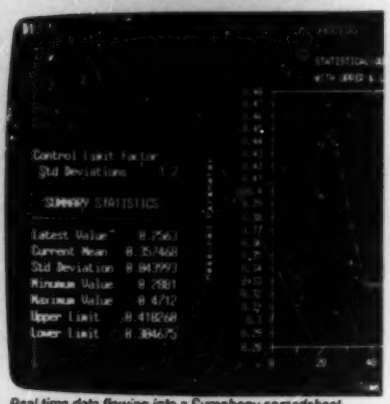

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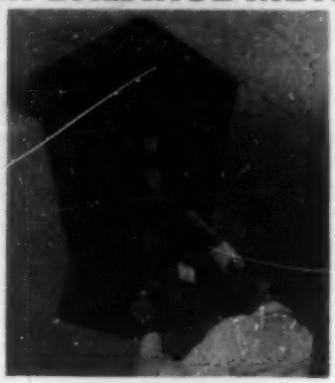

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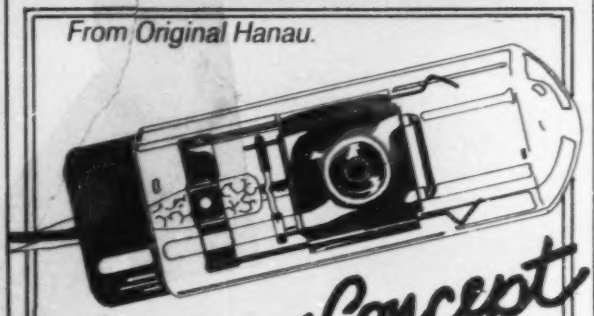

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CIRCLE **201** ON INQUIRY CARD

OPINION POLL RESULTS

Computers don't dominate

A RECENT survey of *Research & Development* readers suggests that computerized data acquisition is not an integral part of the research process.

More than 60% of the respondents acquire data manually and either record it in a notebook or enter it into a computer for analysis. Only 26% of those responding use computers as a tool for sharing data with their colleagues.

Results of the survey follow:

1. *How do you currently acquire data in your laboratory?*
   Data are collected manually, using
   a. strip chart and notebook method 26%
   Data are collected manually, then entered into a computer for analysis, using
   b. personal computer 30%
   c. intermediate-sized computer (larger than an "AT") 6
   d. mainframe computer 4
   Data are fed directly from instruments to computer without human intervention, using
   e. personal computer 19%
   f. intermediate-sized computer 13
   g. mainframe computer 1

2. *Within the next year, do you have plans to upgrade your data acquisition system by either*
   a. purchasing your first computer 11%
   b. expanding the capabilities of your existing system 61
   c. neither 28

3. *How is research information shared with other departments/laboratories in your organization?*
   a. photocopies of data sheets 69%
   b. trading flexible disks 11
   c. computer modems 3
   d. some form of local area network 12

4. *What percentage of your tests involve overnight data acquisition?*
   a. have never used it for overnight acquisition 38%
   b. 1 to 10% 31%
   c. 11 to 25% 12
   d. 26 to 50% 8
   e. 51% or more 9

5. *How long did it take to gain enough proficiency with your data acquisition system to make it useful to you?*
   a. 1 month 34%
   b. 6 months 38
   c. 1 year 11
   d. never have become proficient 9

6. *How does your data acquisition system meet your expectations?*
   a. does more than I expected 12%
   b. does about what I expected 63
   c. does less than I expected 14